



Ashleigh Blackwell
Arcus Consultancy Services
Icon Building, Cube Workspace
Cnr Long Street and Hans Strijdom Avenue
Cape Town

15th July 2020

Dear Ms Blackwell,

Noise Impact Assessment: Minor changes to the Paulputs Wind Energy Facility – Part II Amendments

It is understood that a number of minor changes are proposed to the Authorised Paulputs Wind Energy Facility (WEF), primarily aimed at splitting the WEF into two separate developments: Paulputs North WEF (up to 40 turbines) and Paulputs South WEF (up to 35 turbines).

As part of the original Environmental Impact Assessment (EIA), three alternative Grid Connection options (A, B and C) and three alternative on-site substation options (A, B and C) were assessed. The Competent Authority (CA), Department of Forestry, Fisheries and Environment (DFFE), chose to only issue a favourable authorisation for the preferred Grid Connection option 'C' and on-site substation option 'A'. In order to serve Paulputs South WEF, an application is being made for an additional substation in the same location as the of the previously assessed Substation optional location C of the Paulputs WEF, with associated Battery Energy Storage System (BESS) and grid connection.

As such, this substation, grid connection and BESS is being dealt with through a separate Authorisation. The purpose of this letter is to demonstrate that the noise impact due to these additional plant items is not significant, and therefore does not require a detailed Basic Assessment Report (BAR). The noise impact associated with each item is discussed below:

Substation and BESS:

The substation location was considered as a potential option in the original Paulputs WEF assessment (substation location C), and found to be acceptable. Noise from the inclusion of a BESS will be limited to a small number of air-conditioning units to regulate the temperature of the batteries. Given the substantial separation distance from location C to residential dwellings (approximately 2.6 km from the closest residential dwelling), and the fact that the substation / BESS location is located within the authorised wind turbines, noise from the substation and BESS will be inaudible at residential dwellings. It will therefore have no impact in terms of noise.

Grid Connection:

The grid connection route was considered as a potential option in the original Paulputs WEF assessment (grid connection option A). As stated in that assessment, transmission lines are generally silent, with any noise limited to a phenomenon known as corona noise.

Corona noise is caused by the partial breakdown of the insulation properties of air surrounding the conducting wires. It can generate an audible and radio-frequency noise, but is of a low level, and generally only occurs in humid conditions as provided by fog or rain.

Corona discharges result in:

- Power losses;

- Audible noises;
- Electromagnetic interference;
- A purple glow;
- Ozone production; and
- Insulation damage

As such, Electrical Service Providers go to great lengths to design power transmission equipment to minimise the formation of corona discharges. It is an infrequent occurrence requiring a specific and relatively uncommon set of weather conditions and is of a short duration compared to other operational noises.

The proposed grid connection will be silent for the majority of the time, and even in the event of corona noise being generated, is highly likely to be inaudible at residential dwellings. It will therefore have no impact in terms of noise.

Conclusion:

The proposals will not result in any additional noise impact relative to that already assessed and Authorised for the Paulputs WEF. No further noise studies are therefore required to be undertaken, and the proposal is not significant in terms of the EIA Regulations.

Yours sincerely,



Alan Moore
Senior Acoustics Consultant



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF THE SPECIALIST, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

	(For official use only)
File Reference Number:	
NEAS Reference Number:	DEA/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

PROJECT TITLE

Proposed Amendment of the Paulputs Wind Energy Facility, Northern Cape Province

Kindly note the following:

1. This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
2. This form is current as of 01 September 2018. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at <https://www.environment.gov.za/documents/forms>.
3. A copy of this form containing original signatures must be appended to all Draft and Final Reports submitted to the department for consideration.
4. All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Officer Hours which is visible on the Departmental gate.
5. All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

Departmental Details

Postal address:

Department of Environmental Affairs
Attention: Chief Director: Integrated Environmental Authorisations
Private Bag X447
Pretoria
0001

Physical address:

Department of Environmental Affairs
Attention: Chief Director: Integrated Environmental Authorisations
Environment House
473 Steve Biko Road
Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:
Email: EIAAdmin@environment.gov.za

1. SPECIALIST INFORMATION

Specialist Company Name:	Arcus Consulting Ltd			
B-BBEE	Contribution level (indicate 1 to 8 or non-compliant)	4	Percentage Procurement recognition	100%
Specialist name:	Alan Moore			
Specialist Qualifications:	BA(hons), MIOA			
Professional affiliation/registration:	Full member of the UK Institute of Acoustics (membership number 44639)			
Physical address:	Arcus Consultancy Services Ltd 1C Swinegate Court East 3 Swinegate York YO1 8AJ United Kingdom			
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Telephone:	+44(0)7388388910	Fax:	N/A	
E-mail:	alanm@arcusconsulting.co.uk			

2. DECLARATION BY THE SPECIALIST

I, Alan Moore, declare that –

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

3. UNDERTAKING UNDER OATH/ AFFIRMATION

I, Alan Moore, swear under oath / affirm that all the information submitted or to be submitted for the purposes of this application is true and correct.



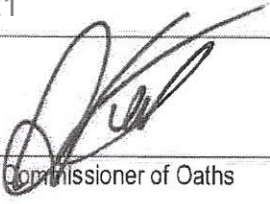
Signature of the Specialist

Arcus Consultancy Services Ltd

Name of Company

2 May 2021

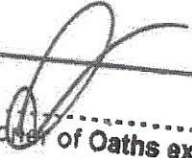
Date



Signature of the Commissioner of Oaths

03/05/2021

Date



Commissioner of Oaths ex Officio
Advocate A FRIEDMAN

Advocate of the High Court
of South Africa
81 Maude Street, Sandton
Date 03/05/2021
